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| | **Johnson Space Center Work Instruction (JWI)** | JWI No.: 1040.6<br>Effective Date: 5/7/2009<br>Expiration Date: 5/7/2014 |

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Compliance is Mandatory

# EMERGENCY PREPAREDNESS PLAN, ANNEX B - COMMUNICATIONS

**Responsible Office: Information Resources Directorate**

*Original Signed by:*

_____

**Larry N. Sweet**
**Director**

# CHANGE RECORD

| Rev. | Date | Originator/Phone | Description |
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| Basic | 2/6/2009 | IT2/T. K. Lindsey | Initial document |
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# 1 PURPOSE

1.1 The purpose of this JWI is to coordinate JSC communications during emergency or disaster conditions and restore essential communications functions and systems at JSC, the Sonny Carter Training Facility (SCTF), Ellington Field (EF), and the White Sands Test Facility (WSTF) as applicable. This Communications Plan identifies equipment, networks, systems, and capabilities available at the Johnson Space Center (JSC).

# 2 APPLICABILITY

2.1 This Communication Plan applies to emergency management personnel including JSC organizations and contractors during emergencies and disasters. It is applicable to JSC, NASA organizations at EF, SCTF, and the WSTF civil servants and contractors as applicable.

# 3 AUTHORITY

3.1 JPR 1040.4, “JSC Emergency Preparedness Program Procedures.”

# 4 APPLICABLE DOCUMENTS

4.1 National Communications System (NCS) Shared Resources (SHARES) High Frequency (HF) Radio Program Workbook.

4.2 Federal Emergency Management Agency (FEMA), March 1991. Guidance for Radio Amateur Civil Emergency Service, CPG 1-15.

# 5 SAFETY PRECAUTIONS AND WARNING NOTES

5.1 Emergency Responder health and safety

Primary consideration will be given to the safety and health of the emergency responders within this JWI. Responders will not act outside their bounds of training and certification. Responders will be provided and utilize the appropriate tools and personal protective equipment (PPE) necessary to provide the required response.

5.2 Communications Protection

5.2.1 Radio

5.2.1.1 Electromagnetic Pulse (EMP) - One of the effects of a nuclear detonation that is particularly damaging to radio equipment is EMP. Plans call for the disconnection of radios from antennas and power source when an Attack Warning is issued. A portable radio unit will then be employed as a backup to maintain limited communications with field units. This procedure will be used until an All Clear is announced. Telephones will also be used while operable.

5.2.1.2 Lightning: Standard lightning protection is used, including arrestors and the use of emergency power during severe weather.

5.2.1.3 Wind and Blast: Damaged UHF, VHF, and 800-mHZ antennas can be quickly replaced with spare units which are stored in the Building 347. These will be replaced by the JSC radio service maintenance subcontractor or, if conditions do not permit access, the Facility Operations Support Services contractor.

5.2.1.4 Roof Access: Individuals/Organizations needing access to roofs must notify the building facility manager (FM). The FM ensure that there is no conflict and approves or disapproves roof access. The FM will notify the Security Dispatcher of date, time, and purpose of work to be performed. The individuals/organizations will contact the Security Dispatcher at X34658 to request the access door to the roof be unlocked. The Security Dispatcher will send Security personnel to unlock the access door.

NOTE: In Building 30, the security dispatcher verifies that Emergency Operations Center (EOC) radio transmitter systems are not in use when access to the roof is requested and granted. Warning signs are permanently in place over the five transmitters in the EOC complex. These transmitters are the Community Partners UHF remote control unit, Community Partners VHF remote control unit, the EOC Amateur Marine HF radio, the Amateur Dual-Band radio, and the Civil Defense/Facilities Management and Operations Division Dual-Band remote control unit. These signs are only removed when requested by the users of these systems and placed back over the systems when users have finished their testing or operation of the systems. When maintenance is completed, individual/organization contacts the Security Dispatcher to state that work is done and to relock the access door. The Security Dispatcher then radios the Security personnel to lock the access door.

5.2.2 Telephone (Common Carrier)

5.2.2.1 Overloaded Circuits or Congested Networks - During emergencies, telephone usage in a community increases dramatically. To ensure continued availability of vital telephone circuits, NASA has access to the Government Emergency Telecommunications Service (GETS) for landline devices. More information on GETS is available in Appendix B, B.3.5.1.1. To avoid overloaded circuits during emergencies, employees will be advised to listen to KTRH-AM 740, the designated Emergency Alert Station (EAS) station for this area

for information and to use telephones only if they have a genuine emergency. If overloaded circuits do become a problem, coordinate with AT&T to begin immediate restoration of priority circuits

5.2.2.2 Emergency Service: During major emergencies when the period of abatement or post-emergency is expected to be of significant duration, a special direct telephone line from a local AT&T office may be installed in the EOC or elsewhere onsite. This will be coordinated by the information resource center telecommunications representative.

5.2.2.3 Priority Service Restoration: The EOC is on AT&T's priority service restoration list.

5.2.2.4 Mobile Communication Systems: Certain Government agencies and commercial sources provide emergency mobile communications centers that can be flown or otherwise transported to the scene of a disaster. These can be used to establish telephone and network connections on a temporary basis. The following should be considered for such use: Program Support Communications Network's (PSCN's) Mobile Emergency Gateway (MEG). MEG is provided as an emergency resource for the PSCN via Marshall Space Flight Center (MSFC).

5.2.3 Computer Equipment and Facilities

The physical protection of computer equipment and facilities will be maintained under normal and emergency operations to help ensure continuity of communications

# 6 TOOLS, EQUIPMENT, AND MATERIALS

6.1 To the extent possible, equipment and materials parallel those used in day to day operations.

# 7 PERSONNEL TRAINING AND CERTIFICATION

7.1 Organizations, program offices and contractors shall ensure that all employees who have direct emergency management duties either at an Incident Command Post (ICP) or in the EOC or are assigned tasks in this annex, are properly trained in the National Incident Management System/Incident Command System (NIMS/ICS) in accordance national and agency policy. See JWI 1040.21, "Annex S, Training"

7.2 Professional training: Employees assigned direct emergency response duties shall be trained as appropriate; certified, credentialed, and licensed as required by Federal, State and local laws and/or as required by NASA directives and contractual requirements.

7.3 Additional training required on emergency procedures and communication equipment operations will be provided by the JSC Communications Officer or JSC Radio Communications Specialist as needed.

# 8 RESPONSIBILITIES

## 8.1 General

8.1.1 The JSC emergency communications system is a joint partnership between Information Resources Directorate (IRD) and Center Operations Directorate (COD). IRD retains primary responsibility for maintaining convention communications, systems, and networks. The Office of Emergency Management, a COD office, provides radio communications in support of all JSC offices, organizations and contractors. Equipment and materials available for emergency events or situations includes a variety of government-owned and operated systems as well as equipment operated by the JSC Amateur Radio Club (ARC). The departments, offices, and groups that contribute to or support the JSC communications system are listed in Section 7 II. C.

8.1.2 The JSC Security Office broadcasts warning information received at the JSC warning point, the Emergency Dispatch Center (EDC), to first and emergency responders, Center officials and, where appropriate, employees. The responsibility of ensuring the communications system is operational and incorporates all available resources remains with functional organizations that utilize and maintain those systems during non-emergency periods.

## 8.2 The Director, Information Resources Directorate (IRD)

The Director, IRD, shall:

8.2.1 Appoint an employee trained in accordance with NIMS to serve as the JSC Communications Officer in support of the JSC Emergency Response Team (ERT), the JSC Hurricane Incident Management Team (HIMT) and an activated EOC, when necessary.

8.2.2 Ensure the availability and reliability, maintenance, and operations of the Center Telecommunications System (CTS), NETWORX, and GETS/WPS, JSC Television System, and JSC INS computer networks.

8.2.3 Coordinate with the telephone company for availability, maintenance, and operation of the Mobile Communications System (MEG, from MSFC, when needed see Appendix B, Paragraph B.3.4.1.4.

8.2. 4 Coordinate Government Emergency Telephone System (GETS) services from NASA HQ with the JSC Office of Emergency Management.

## 8.3 The Director, Center Operations Directorate (COD)

The Director, COD, shall:

8.3.1 Appoint an employee trained in accordance with NIMS to serve as the JSC Communications Officer in support of the JSC Emergency Response Team (ERT), the JSC Hurricane Incident Management Team (HIMT) and an activated EOC, when necessary.

8.3.2 Ensure the availability, reliability, maintenance, and operation of the internal radio and early warning system communication networks.

## 8.4 The JSC Communications Officer

The JSC Communications Officer shall:

8.4.1 Coordinate common communications procedures.

8.4.2 Develop and maintain a communications resource inventory (See Annex M, Resource Management).

8.4.3 Ensure a communications capability exists between the EOC, EDC, and Center communications resources to include coordination with the telephone company for installation of dedicated telephone lines into the EDC/Communications Center and/or EOC.

8.4.4 Ensure a list of circuit restoration priorities is developed.

8.4.5 Ensure procedures are in place for dissemination of message traffic.

8.4.6 Coordinate the inclusion of volunteer amateur radio operators into the networks.

8.4.7 Develops and maintains Standard Operating Procedures (SOP's) as defined in Appendix 1 to include operating procedures, message handling, and recall rosters for designated employees.

8.4.8 Assures designated employees are trained on assigned equipment as necessary.

## 8.5 JSC Radio Communications Specialist

The JSC Radio Communications Specialist shall:

8.5.1 Ensure that emergency response talk-groups, such as Fire, Security, Maintenance and Operations, Construction, Rigging, etc., and the Emergency Preparedness conventional systems are maintained operable during an emergency.

8.5.2 Activate the "FIRE 2" talk-group for use by the Emergency Response Team Members to enhance operability and minimize adverse impact on the other emergency response talk-groups.

8.5.3 Provide ten (10) pre-programmed, loaner, 2-way portable radios with ten (10) extra batteries and two (2) multi-unit chargers to the Hurricane Ride-out Team Coordinator or Alternate Coordinator.

8.5.4 Ensure designated employees are trained on the appropriate use of JSC radio equipment.

8.5.5 Provide six (6) pre-programmed loaner, 2-way portable radios with six (6) extra batteries and one (1) multi-unit charger to the EDC in the event that the Centracom Elite Dispatch consoles loose audio from the Embassy Switch and are reverted to Fail-soft or Site Trunking mode and have to dispatch via portable radios as a contingency until audio is restored to the consoles.

8.5.6 Provide two (2) PC wireless cards for laptop computers.

# 9 PROCEDURE

## 9.1 Concept of Operations

### 9.1.1 General:

9.1.1.1 A common operating picture at JSC and across other jurisdictions provides the framework of JSC communications capabilities. This framework is made possible by interoperable systems. Extensive communications networks and facilities are in existence throughout local communities and government to provide coordinated capabilities for the most effective and efficient response and recovery activities. A diagram of the communications network is in Appendix 1.

9.1.1.2 Existing Center communications capabilities consist of telephones, computer networks, radio, television systems, and the site-wide warning system to perform the basic communication efforts for emergency operations. Landline circuits, when available, will serve as the primary means of communication with other communication systems as back up. Radio and telecommunications resources will normally be used for initial response to emergencies. Television and computer networks will be used as needed. Wireless devices e.g., cellular telephone and Blackberry systems will be used to back up the CTS. Radio frequencies licensed for functional usage are obtained through the JSC Spectrum Manager.

9.1.1.3 During emergency operations, all Center elements will retain existing equipment in an operational status and will immediately inform the EOC of any change of status. Routine maintenance will be deferred until the emergency incident is terminated by the JSC Incident Commander (IC) and the EOC is demobilized.

9.1.1.4 Should day-to-day operations prove insufficient or unable to meet the communications needs created by an emergency, various Federal, State, or Local Governmental agencies as well as JSC employees and volunteer amateur radio operators may be asked to provide additional communication capabilities.

### 9.1.2 Implementation of NIMS/ICS

9.1.2.1 The first official responder on the scene of an emergency situation shall initiate the ICS and establish an ICP. As other responders arrive, the individual most qualified to deal with the specific situation present shall assume the position as the IC. For fire, hazardous materials (HAZMAT), and radiological incidents, the senior Fire Protection Specialist will generally assume the role of IC. The IC is responsible for directing, controlling, and coordinating responding resources and designating emergency operating areas. The EOC will generally not be activated for short-term incidents.

9.1.2.2 During major emergencies, disasters, or catastrophic incidents, it may be necessary to transition from the normal ICS structure to a Multi-agency Coordination System. The EOC is central to this system, and functions as a conduit for coordinating communications, information and resources (see JWI 1040.18, “Annex N, Emergency Operations Center”). The IC will manage and direct the on-scene response from the ICP. The EOC will mobilize and deploy resources for use by the IC, coordinate external resource and technical support, research problems, provide information to senior managers, disseminate emergency employee information, and perform other tasks to support on-scene operations. In the event of a catastrophic incident, considerations will be made for the implementation of a regional response system.

## 9.2 Phases of Management

### 9.2.1 Prevention

9.2.1.1 The JSC Communications Officer will maintain a current technology-based, reliable, interoperable, and sustainable communications system.

9.2.1.2 Coordinate with the Office of Emergency Management to assure warning communications systems meet JSC needs.

9.2.1.3 Ensure integrated communications procedures are in place to meet the needs and requirements of JSC, NASA and the region.

### 9.2.2 **Preparedness**:

9.2.2.1 Review and update this communications annex.

9.2.2.2 Develop communications procedures that are documented and implemented through communications operating instructions (include connectivity with private-sector and nongovernmental organizations).

9.2.2.3 Thoroughly and continually review the communications system for improvement including the implementation and institutionalized use of information management technologies.

9.2.2.4 Ensure communications requirements for the EOC are regularly reviewed.

9.2.2.5 Review (AAR) of actual incidents and exercises and other sources of information for lessons learned.

9.2.2.6 Ensure the integration of mitigation plans and actions into all phases of emergency management as applicable.

9.2.2.7 Acquire, test, and maintain communications equipment.

9.2.2.8 Ensure replacement parts for communications systems are available and make arrangement for rapid re-supply in the event of an emergency.

9.2.2.9 Train personnel on appropriate equipment and communication procedures as necessary.

9.2.2.10 Conduct periodic communications drills and make communications a major element during all exercises.

9.2.2.11 Review assignment of all personnel.

9.2.2.12 Review emergency notification list of key officials and department heads.

9.2.2.13 Provide AT&T with a list of circuit restoration priorities for essential JSC systems.

9.2.2.14 Assure equipment is kept under a schedule of testing, maintenance, and repair.

### 9.2.3 Response

9.2.3.1 Select communications personnel required for emergency operations according to the incident.

9.2.3.2 Incident communications will follow ICS standards and will be managed by the IC using a common communications plan and an incident-based communications center.

9.2.3.3 All incident management entities will make use of common language during emergency communications. This will reduce confusion when multiple agencies or entities are involved in an incident.

9.2.3.4 Ensure emergency equipment repair on a 24-hour basis.

### 9.2.4 Recovery:

All activities in the emergency phase will continue until emergency communications are no longer required. At that time, the JSC Communications Officer will notify organizational elements to cease emergency operations and resume normal operational status.

### 9.2.5 Continuity

Each department or agency with communications responsibilities shall establish a line of succession for communications personnel.

### 9.2.6 Existing Communication Systems and Use

9.2.6.1 Internal Radio Networks: JSC is licensed to operate on pre-programmed talk-groups. Details of each of these talk-groups may be obtained from the JSC Radio Specialist. Normal operations will be on the Fire1, Security Prime, and the Maintenance and Operations channels. The HIMT will operate using the “FIRE 2” talk-group during an Emergency.

9.2.6.2 Satellite Phones: Two satellite phones and accessories are maintained in the EOC to support emergency requirements and or to be used by management during emergency conditions.

9.2.6.3 Civil and Law Enforcement Networks (used by Security Office only).

9.2.6.3.1 Harris County Sheriff’s Office 800-mhz radios (used as required during an emergency).

9.2.6.3.2 Houston Fire Department (used as required during any emergency).

9.2.6.3.3 Teletype Net – Texas Law Enforcement Telecommunications System (TLETS) is a state-wide telecommunications network that connects the State Warning Point (State EOC) with approximately 670 City, County, State, Federal, and Military law enforcement agencies in Texas. Emergency communications among State, District, and Local Governments will be transmitted through this system (used as required during an emergency).

9.2.6.3.4 Four Motorola VHF portable government-owned radios are reprogrammed to add the DPS/Intercity VHF frequencies on Channels 1-16, and are permanently assigned as follows (to be requested, as needed, by Incident Commander):

-M# HT1000; N#1733162; SN#402AWN6839Z
User: Kenneth Chevalier/JC, X33177

-M# HT1000; N#1449670; SN#402AVEC671X
User: Dennis Perrin/JS7/X34232

-M# HT1000; N#1449671; SN#402AVEC672X
User: Dennis Perrin/JS7/X34232

-M# JT1000; N#1606111; SN#402AWJ9297Z
User: Sylvia Ramirez/JS7/X34003

The VHF radios are programmed as follows to be used to support in the event of SNS RSS activation:

CH 1-M&O/Facilities (JSC)
CH 2-M&O/Facilities Talk Around (JSC)
CH 3-Construction (JSC)
CH 4-Construction Talk Around (JSC)
CH 5-Weather (NOAA)
CH 6-DPS Base A
CH 7-DPS Mobile Base A
CH 8-Intercity Mobile
CH 9-Intercity Base
CH10-DPS Channel 1 - RX
CH11-DPS Channel 8 - RX
CH12-DPS Mobile B
CH13-DPS Base B
CH14-DPS Mobile C
CH15-DPS Repeater
CH16-DPS Repeater

9.2.6.3.5 Two Motorola 800-mhz portable radios are reprogrammed to add the HCPHES 800-mhz frequencies:

-M# MTS2000 - N# 2086035; SN# 466CCY1637 Z
to be requested by the IC (as needed)

-M# MTS2000 - N# 2086036; SN# 466CCY1638 Z
to be requested by the IC (as needed).

The two Motorola 800-mhz government-owned radios are programmed as follows:

Zone A:
CH1-A-PHES
CH2-A-HC-EMS
CH3-A-HC-FIRE
CH4-A HC-OEM 1
CH5-A-HC MA 1
CH6-A-HC MA 2

Zone B:
CH1-B-C5-DISP 1
CH2-B-C7-DISP 1
CH3-B-C8-DISP 1

Zone C:
CH1-C-SO CNTRL
CH2-C-SO INFO
CH3-C-METRO 1
CH4-C-METRO 2
CH5-C-TRANSTAR
CH6-C-PORT HOU
CH7-C- HC DPS

### 9.2.7 External Radio Networks

9.2.7.1 Amateur radio networks, either existing or those established to support the emergency.

9.2.7.2 NCS SHARES Radio Network.

9.2.7.3 NASA HF Radio Network

9.2.7.4 Public Information Emergency System (PIES) (broadcast via AM 740 in Houston, Texas).

9.2.7.5 National Emergency Coordination Network (NECN). This network is designed to provide back-up command and control communications system to support National Response Framework activities and other civil emergencies by providing Federal emergency response personnel with a common HF frequency to meet on for the exchange of information, coordination, of activities, and to request assistance. In the event of an actual emergency, this network will provide links directly to state disaster field offices, its emergency support function areas and Headquarters, FEMA. Tests are conducted as announced by NASA Headquarters. A NECN listing of frequencies, call signs, station locations, and agencies are documented and posted in the JSC

Communication's Officer workbook and in a binder posted at the amateur radio workstation in the EOC.

NOTE: Reference Appendix 1, Section F for contacting radio personnel.

### 9.2.8 Security Office 800-mHZ Portable Radio – Law Enforcement Agencies.

ZONE A

| CH | USER | DESCRIPTION |
|---|---|---|
| 1 | NASA 1 | JS4/Security Office 800-mHZ Radios (8) |
| 2 | C8 DISP 1 | Constable Precinct 8 |
| 3 | HCSO DISP 3 | Harris County Sheriff's Office |
| 4 | HC TAC 3 | Harris County's TAC III |
| 5 | LC PD 1 | League City Police Department (PD) |
| 6 | LC FD | League City Fire Department (FD) |
| 7 | LC EMS 1 | League City Emergency Medical Service (EMS) |
| 8 | BT PD 1 | Baytown PD |
| 9 | BT FD/EMS | Baytown FD/EMS |
| 10 | WEB PD 1 | Webster PD |
| 11 | WEB PD TAC 2 | Webster PD TAC II |
| 12 | PORT HOU | Port of Houston |
| 13 | HC DPS | Harris County Dept of Public Safety |
| 14 | HPD 1 | Houston PD |
| 15 | HPD FOX | Houston PD FOX |
| 16 | HC MUT AID 2 | Harris County Mutual Aid |

ZONE B

| CH | USER DESCRIPTION | |
|---|---|---|
| 1 | HC MUT AID 1 | Harris County Mutual Aid 1 |
| 2 | HC MUT AID 2 | Harris County Mutual Aid 2 |
| 3 | HC MUT AID 3 | Harris County Mutual Aid 3 |
| 4 | HC MUT AID 4 | Harris County Mutual Aid 4 |
| 5 | HC MUT AID 5 | Harris County Mutual Aid 5 |
| 6 | HC MUT AID 6 | Harris County Mutual Aid 6 |
| 7 | GC OEM | Galveston County Office of Emergency Management (OEM) |
| 8 | GC NWS | Galveston National Weather Service |

ZONE C

| CH | USER | DESCRIPTION |
|---|---|---|
| 1 | C-I CALL | Call on ITAC |
| 2 | C-I TAC 2 | Emergency ITAC |
| 3 | C-I TAC 3 | Emergency ITAC |
| 4 | C-I TAC 4 | Emergency ITAC |
| 5 | C-I TAC 5 | Emergency ITAC |
| 6 | C-PPD POLICE 1 | Pasadena PD/Pasadena Area |
| 7 | C-PPD POLICE 2 | Pasadena PD/Pasadena Area |
| 8 | C-PPD POLICE 3 | Pasadena PD/Downtown Area |
| 9 | C-PPD POLICE 4 | Pasadena PD/League City Area |

### 9.2.9 Computer and Television Networks

9.2.9.1 JSC television networks (closed circuit or limited range transmission).

9.2.9.2 JSC Information Network System (onsite local area network).

## 9.3 Tasks and Responsibilities

9.3.1 The Director, IRD, shall appoint a representative, trained in accordance with NIMS, to serve as JSC Communications Officer.

9.3.2 The Director, Center Operations Directorate shall appoint a representative, trained in accordance with NIMS, to serve as JSC Radio Communications Specialist.

9.3.3 JSC Communications Officer shall:

9.3.3.1 Develop and maintain the communications resources inventory.

9.3.3.2 Ensure that a communications capability exists between the EOC and Center communications resources as required.

9.3.3.3 Coordinates and activates volunteer amateur radio operators and networks.

9.3.3.4 Develops the Communications annex and maintains SOP’s as defined in Appendix 1 (to include operating procedures and recall rosters for essential personnel) and checklists are prepared, maintained and reviewed annually.

9.3.3.5 Assures personnel are trained on the appropriate equipment as necessary.

9.3.4 The JSC Radio Communications Specialist shall:

9.3.4.1 Ensure that emergency response talk-groups, such as Fire, Security, Maintenance and Operations, Construction, Rigging, etc., and the Emergency Preparedness conventional systems are maintained operable during an emergency.

9.3.4.2 Activate the “FIRE 2” talk-group for use by the Emergency Response Team Members to enhance operability and minimize adverse impact on the other emergency response talk-groups.

9.3.4.3 Provide ten (10) pre-programmed, loaner, 2-way portable radios with ten (10) extra batteries and two (2) multi-unit chargers to the Hurricane Incident Management Team Coordinator or Alternate Coordinator.

9.3.4.4 Ensure that radio operators remain responsible for the proper use of equipment and proper message handling. See JWI 1040.18, “Annex N, Emergency Operations Center.”

9.3.4.5 Ensure that radio operators are trained on the appropriate use of the radio equipment.

9.3.4.6 Provide six (6) pre-programmed loaner, 2-way portable radios with six (6) extra batteries and one (1) multi-unit charger to the EDC Dispatchers in the event that the Centracom Elite Dispatch consoles lose audio from the Embassy Switch and are reverted to Fail-soft or Site Trunking mode and have to Dispatch via portable units for the interim until audio is restored to the consoles.

9.3.4.7 Provide two (2) PC wireless cards for laptop computers to provide mobility and data communications as an alternative means of access to the Internet and Email.

9.3.4.8 The JSC Communications Officer and Radio Communications Specialist will be jointly responsible for maintaining this Annex and reviewing it annually for changes and updates. Each organization will develop SOPs that address assigned tasks.

## 9.4 Direction and Control

9.4.1 General

9.4.1.1 During EOC activation, the JSC Communications Officer is assigned to the ICP or EOC and is responsible for the activities and establishment of communication system coordination.

9.4.1.2 The JSC Radio Specialist is assigned to the ICP or EOC and is responsible for the activities and establishment of emergency communication system coordination.

9.4.1.3 The Security Office representative is responsible for the communications and standard operating procedures and efforts, and will handle communications received or sent on TLETS and Harris County's 800-mhz law enforcement radio networks.

9.4.1.4 Communication representatives and equipment operators from responding agencies or contractors, while under control of their own office/company and operating their own equipment in support of the EOC will be responsible for following the procedures outlined in this annex.

9.4.1.5 During emergency situations involving multiple agencies and/or jurisdictions, the various code systems used for brevity will be discontinued and normal speech will be used to insure comprehension. In addition, local time will be used during transmissions.

9.4.2 Readiness Levels

9.4.2.1 Level 4 - Normal

See the prevention and preparedness activities in paragraphs 9.2.6.1 and 9.2.6.2 above.

9.4.2.2 Level 3 – Increased Readiness

a) Alert key personnel.

b) Check readiness of all equipment and facilities and correct any deficiencies.

9.4.2.3 Level 2 – High Readiness

a) Alert personnel for possible emergency duty.

b) Monitor situation of possible issuance of warning or alerts.

9.4.2.4 Level 1 – Maximum Readiness (24-hour* operation)

The following systems are available for activation on a 24-hour basis until the emergency is terminated.

9.4.2.4.1 Institute 24-hour operations.

9.4.2.4.2 Conduct periodic communication checks

*NOTE: During long-term events such as hurricanes, certain resources (computer networks, dial-in messaging system for employee information bulletins, amateur radio, SHARES, and Civil Defense networks as appropriate, and EOC radios and communication equipment) may fail due to loss of utilities, disruption of communications

paths, etc. Primary communications may only be possible via radio, cell phones or two way paging devices (such as a Blackberry). In the event that Building 8 is powered down, television networks including the cable systems will no longer carry programming.

### 9.4.3 Support

If requirements exceed the capability of local communications resources, support from other Federal, state, and local government resources will be requested by the Office of Emergency Management through the Center Operations Director. Assistance of local governments and entities will be in accordance with pre-established mutual aid and local memorandum of understanding agreements.

## 10 RECORDS

Vital records should be protected from the effects of disaster to the maximum extent feasible. Should records be damaged during an emergency situation, professional assistance in preserving and restoring those records should be obtained as soon as possible. All records generated during an emergency will be collected and filed in an orderly manner so a record of events is preserved for use in determining response costs, settling claims, and updating emergency plans and procedures.

## APPENDIX A. ACRONYMS

| | |
|---|---|
| AAR | After Action Reports |
| ARC | Amateur Radio Club |
| AT&T | American Telegraph and Telephone |
| COD | Center Operations Directorate |
| COMMO | Communications Officer |
| CPAO | Communications and Public Affairs Office |
| CTS | Center Telecommunications System |
| EDC | Emergency Dispatch Center |
| EWSD | Electronic Digital Switching System/Electronic World Switch Digital |
| EF | Ellington Field |
| EMP | Electromagnetic Pulse |
| EMD | Emergency Medical Service |
| EOC | Emergency Operations Center |
| ERT | Emergency Response Team |
| FD | Fire Department |
| FEMA | Federal Emergency Management Agency |
| FM | Facility manager |
| FTS | Federal Telephone System |
| GETS | Government Emergency Telecommunications Service |
| HAZMAT | Hazardous Materials |
| HF | High Frequency |
| HIMT | Hurricane Incident Management Team |
| IC | Incident Commander |
| ICP | Incident Command Post |
| ICS | Incident Command System |
| IRD | Information Resources Directorate |
| JPR | Johnson Space Center Procedural Requirements |
| JSC | Johnson Space Center |
| JWI | Johns Space Center Work Instruction |
| MEG | Mobile Emergency Gateway |
| MSFC | Marshall Space Flight Center |
| MHz | Mega Hertz |
| NASA | National Aeronautics and Space Administration |
| NCS | National Communications System |
| NECN | National Emergency Coordination Network |
| NISN | NASA Integrated Service Network |
| OEM | Office of Emergency Management |
| PD | Police Department |
| NIMS | National Incident Management System |
| PIES | Public Information Emergency System |
| PPE | Personal Protective Equipment |

| | |
|---|---|
| PSCN | Program Support Communications Network |
| PSTN | Public Switched Telephone Network |
| SCTF | Sonny Carter Training Facility |
| SHARES | Shared Resources |
| SOP | Standard Operating Procedures |
| SyREN | Systematic Recall and Emergency Notification |
| TLETS | Texas Law Enforcement Telecommunications System |
| UHF | Ultra High Frequency |
| VHF | Very High Frequency |
| WPS | Wireless Priority Service |
| WSTF | White Sands Test Facility |

# APPENDIX B. COMMUNICATION INSTRUCTIONS

## B.1 PURPOSE

The purpose of this Appendix is to define emergency management plans and procedures, which enable emergency communications at JSC.

## B.2 AUTHORITY

The JSC Communications Officer, who is responsible for directing emergency communications at JSC, operates under the authority of the JSC Emergency Preparedness Manager. The Communications Officer, hereafter referred to as COMMO, serves as the focal point for all non-fire and non-security-related communications traffic in preparation for, during, or after an emergency has occurred at JSC.

## B.3 CONCEPT OF OPERATIONS

B.3.1 Sequence of Response for an Emergency Incident

B.3.1.1 Emergency Response Team: Activation of the JSC ERT will be at the direction of the Emergency Operations Office or on-scene Incident Commander. Activation will be by radio tone out alert. This activation may be preceded by the site-wide warning siren system. Additionally, conventional pagers and pagers which interface with JSC e-mail may be deployed as needed.

B.3.1.2 Advise the Communications and Public Affairs Office (CPAO): Call the JSC News Room (281-483-5111) to advise them of the situation and pending actions that may be required.

B.3.1.2.3 Response to Emergency Notification: The COMMO will respond to the scene. Appropriate ERT badge and vehicle placard must be in evidence. The COMMO may also report directly to the EOC for activation of communications resources if so directed.

B.3.1.2.4 Plan Activation: The COMMUNICATION OFFICER is briefed by Incident Commander who will request either specific resources to be activated or that this general plan is to be activated.

B.3.1.2.5 TV Warning Banner Activation: Make appropriate announcement on the message system and enable access to the JSC TV Safety Channel (EOC Dispatchers).

B.3.1.2.6 Computer Net Warnings: Call the IRD network control center (483-4800/night 483-7985) for emergency broadcast via e-mail [Note, this is a slow process. It is anticipated

that when the JSC Systematic Recall and Emergency Notification (SyREN) system capability is up and running it may be a better choice for quick dissemination of information].

B.3.1.2.7 EOC Activation: Activate the EOC communication links.

B.3.2 Communication Officer (COMMO): The JSC Communications Officer will depend primarily on cellular phone for all communications in the field.

If the sequence of events requires activation of the EOC, primary communications will use existing local radio base stations, repeaters, and mobile (vehicle-mounted) and hand-held radios for communications between the EOC and the scene of the emergency. The EOC will use normal telephones for communications with other resources and agencies with cellular service added as needed. In the event the EOC is not activated and a command post is established in the field, cellular phones will be a primary link for the JSC Communications Officer. If the normal site telephone service is out of operation, cellular phones will necessarily become the primary site telephone system.

To enable the dissemination of information to JSC employees, the EOC will use the dial-in messaging systems, telephone, closed-circuit television, and computer networks.

B.3.3 Equipment

All equipment, including some of the American Telephone & Telegraph and AT&T systems, is contained within the “fence” of JSC. In general, repeaters and base stations are located within JSC’s taller buildings to gain the advantage of antenna height. Control points for repeaters and base stations are remotely located and connected by copper wire telephone lines in the JSC telecommunications backbone.

The Electronic Digital Switching System/Electronic World Switch Digital (EWSD) Siemens system has nodes located in Buildings 17, and 30A at JSC, Building 260 at Ellington Field, and the SCTF. Nodal locations will be linked by copper wire communications. The various buildings will continue to depend on copper wire telephone backbone cables that run through the JSC tunnel system and from the outlying buildings. The telephone cables will either be direct-buried or run in cable duct-banks. Each telecommunications closet has a three hour battery powered, uninterrupted backup power supply. In addition, all node locations except the SCTF will be supported by diesel engine driven generators.

In case of difficulty, access to any of the JSC resources will be coordinated with JSC Security for locksmith support.

B.3.4 System Configuration and Functional Dependencies

B.3.4.1 External Dependencies

B.3.4.1.1 Telephone Trunk Blockage: In the event of telephone trunk blockage, personnel that have card should utilize it. In the event access to landline system is not

possible, try cellular devices for connectivity. With the combination use of WPS for wireless (cellular telephone or BlackBerry) devices and GETS should improve service connectivity.

B.3.4.1.2 Wireless device (Cellular Telephone/BlackBerry) Circuit Blockage: Blockage of cellular telephones can and does occur during emergencies. Wireless Priority Service (WPS) for JSC key personnel should utilized the access code *272 to enable that capability in order to make required telephone calls. Blockage or congestion conditions occurrence are dependent on the number of cellular calls, which can be accommodated in any one area and the availability of trunks into the commercial telephone system. Cellular service in outlying areas will have fewer connections available than in major urban areas. In summary, loss of local telephone services may also put area cellular telephones out of service.

B.3.4.1.3 Two way paging devices such as the BlackBerry are likely to continue to function even if cellular telephone circuits are blocked; however, they too could experience the same blockage due to congestion of the networks. If those JSC key personnel have WPS, it is encourage that they utilize this service if blockage is experienced.

B.3.4.1.4 Power Source Dependencies at JSC: Building 30 MOW is equipped with emergency power and cooling that will accommodate the EOC at all times.

Repeaters and base stations in locations without emergency backup power will only be available as long as commercial power remains up and the Center telephone backbone cable distribution system is functional. Sea water in the tunnels has the potential to not only shut down electrical power distribution to the site, but to also short out the telephone system cabling, thereby rendering all remote-controlled radio and base stations inoperable. List of essential communication equipment and their power sources are listed in Appendix B, Table 1-1.

B.3.4.2 Local Interconnection Dependencies: The local telephone nodes are interconnected with copper cable. These are routed through the JSC tunnels for the most part. The connecting cable is buried on the south side of Avenue B. Disruption of service due to physical damage of backbone cable, whether in the tunnel or buried, requires the service of telecommunications splicers.

Disruption of the nodal communications paths will interrupt service between nodes, and groups of instruments at JSC will be without service. Outlines of critical telephone instrument at JSC are available in Appendix B, Table 1-2.

In the event of a total power failure of the CTS Siemens switch, the telephones listed in Appendix B, Table 1-3 will automatically be transferred to the outside AT&T System telephone trunks. These telephones will bypass the CTS switch and may be used directly.

B.3.5 Interconnection of JSC Systems to Other Service Providers and Alternative Services

B.3.5.1 Federal Government Resources

B.3.5.1.1 JSC Center Telecommunications System (CTS): The CTS is the primary communications system for JSC. It is housed on site in a distributed configuration; one or more nodes are located in Buildings 17, 30A, Building E260 at Ellington Field, and the Sonny Carter Training Facility. It is important to note that storm damage to one building can potentially disable service to several other buildings. Emergency contacts for the CTS are listed in Appendix B, Table 1-4.

NOTE: The phone system has diesel backup, so it can run indefinitely as long as fuel is available.

B.3.5.1.2 Government Emergency Telecommunication Service: (GETS) is an emergency telecommunication service that will provide improved probability of completing a call after damage to the telecommunication network or during severe network congestion.

Wireless Priority Service: (WPS) is to provide an end-to-end nationwide wireless priority communications capability to key NS/EP personnel during natural or man-made disasters or emergencies that cause congestion or network outages in the Public Switched Telephone Network (PSTN). Both GETS and WPS at WSTF is handled via CIO at WSTF though NASA HQ's GETS point of contact.

1. WPS is complementary to, and most effective when used in conjunction with, the Government Emergency Telecommunications Services (GETS) to ensure a high probability of call completions in both the wire-line and wireless portions of the PSTN.

2. GETS and WPS should be used only when the user is unable to complete emergency calls through normal or alternate telecommunications means. This service will be accessed nationwide through the GETS universal access number, 1-710-627-4387, and user authorization will be accomplished through the use of a personal identification number (PIN), and access code *272 for WPS users. This number may also be accessed by JSC cellular phones on the Houston Cellular contract.

3. Authorized users will be issued a GETS card and password PIN and will be able to use the service by dialing the access number, entering their PIN, and then dialing the destination number.

4. Requests for GETS services shall be submitted through the EOC to provide GETS cards from NASA HQ based on approval from the JSC Office of Emergency Management.

5. Other request requirements that are related to WPS, which are forwarded to the JSC Communications Officer directly, shall have directorate level authority appointing those names that fit continuity roles to support the JSC Continuity of Operations plan. In those particular cases the JSC Communications Officer will review those requests, advise the

EOC on theses individual's role or critical title/position and make my recommendation to the EOC based on the guidelines from the NCS and applicability to JSC.

Guidelines for both GETS and WPS are adhered to by the National Communications System that basically states the following:

Disaster Recovery LANDLINE (GETS) and WIRELESS (WPS)

This user type performs national security and emergency preparedness NS/EP functions of managing a variety of recovery operations after the initial response has been accomplished. These user functions may include the following:

a. Managing medical resources such as supplies, personnel, or patients in medical facilities

b. Other activities such as coordination to establish and stock shelters, to obtain detailed damage assessments, or to support key disaster field office personnel may be included. Examples of those eligible include:

i. Medical recovery operations leadership

ii. Detailed damage assessment leadership

iii. Disaster shelter coordination and management

iv. Critical Disaster Field Office support personnel

NOTE: The loss of a telephone central office or lines will prohibit use of this service since the local CTS switch is tied to the commercial phone company. If the cellular service to the JSC region comes from the same central office, our only alternative is to use microwave or direct satellite service to reach off-site destinations.

B.3.5.1.3 NASA UNITES and UNITES Mobile Systems: The NASA UNITES, which is operated by MSFC as a long-distance network for voice, video, facsimile, and data transmission, can support special voice and data circuit requirements.

B.3.5.1.4 In the event of catastrophic destruction of the UNITES facilities at JSC, MSFC can transport the MEG to JSC by land, air, or water. MEG is on constant standby for such an event. Contacts for all UNITES services are listed in Appendix, Table 1-5. The telephone operations personnel will make contact as needed.

B.3.5.1.5 General Services Administration NETWORX Universal Contract: JSC access to NETWORX for administrative and institutional services is normally through the UNITES gateway. Refer to UNITES contacts in the event that NETWORX services are required, listed in Appendix B, Table 1-5.

For requirements related to Shuttle Operations or the Russian Program Office, contact the UNITES Site Manager.

B.3.5.2 Commercial Resources

B.3.5.2.1 AT&T: Contact UNITES for AT&T interfaces.

MCIW: Contact UNITES for Qwest interface.

B.3.5.2.2 AT&T: Loss of the Apollo Central Office will cause a temporary but major disruption of all communication services in the JSC area. AT&T can provide emergency repair services, including mobile switching systems, to minimize downtime. Appendix B, Table 1-6 lists AT&T contacts.

B.3.5.3 Cellular communication service is dependent on AT&T for circuits between its cellular towers and the central telephone office.

B.3.6 Volunteer Resources:

JSC ARC operators will support emergencies when available. Regional threats such as hurricanes may preclude the availability of these persons since the well-being of their homes and families would be of greater importance. The JSC Radio Specialists maintains contact lists for the JSC ARC. Appendix B, Table 1-8 list JSC ARC specialist.

B.3.7 General Procedures and Information

B.3.7.1 General Operating Guidelines: At the time the JSC EOC is activated, JSC's Emergency Preparedness frequency will be Zone 1 EMERGENCY network as displayed on the user's radio display. (For Zone and network definitions, reference Appendix B, Table 1-8 in this attachment.) This channel will be used for:

B.3.7.1.1 Flow of information between EOC and other elements.

B.3.7.1.2 For other non-security/fire emergency traffic.

a. Security personnel should remain on the Security frequency unless otherwise directed by the EOC Dispatcher. All security dispatch will be done by the JSC Security Dispatchers on the Zone 1 SECURITY or FIRE networks respectively).

b. The HFD will communicate on the Zone 1 FIRE network with the EOC and other radio users. The EOC will communicate with EOC personnel in the field on the Zone 1 EMERGENCY network as much as possible or as otherwise directed by the Dispatcher.

c. By following this procedure, traffic will be relieved while yet allowing essential units to have direct and immediate communication.

B.3.7.1.3 Field Units - How to Report an Emergency: Units will report to the EOC Dispatcher via Zone 1 FIRE network. The dispatcher will direct radio traffic to the appropriate channel.

B.3.7.1.4 EOC Field Unit Check-in Schedule: When the EOC is operational, EOC field units involved with incident abatement and potentially in harms way will check with the EOC on Zone 1 EMERGENCY network every 15 minutes. This is to ensure the safety and whereabouts of field personnel.

B.3.7.2 Dialogue for Radio Communication

B.3.7.2.1 All personnel using the radio channels will use the unit number assigned to them. These unit numbers are listed in Appendix B, Table 1-10 along with the corresponding names and functions.

B.3.7.2.2 Do not transmit “on top of” an ongoing conversation. Wait until it is evident that the message in progress is over. If you need to join the conversation, identify yourself by unit number as you “break into” the conversation.

B.3.7.2.3 Always transmit a “unit clear” when you have finished your conversation. This allows others to take their turn.

B.3.7.2.4 Keep messages short and to the point.

B.3.7.2.5 Speak plain English. In an emergency situation, do not use the 10-codes since they differ from agency-to-agency and department-to-department. Do not use CB jargon or other expressions that others may not understand. Remember, in an emergency a message spoken in clear, plain English is less likely to be misunderstood.

B.3.8 Personnel Call-up

B.3.8.1 Procedures: In the event of EOC activation, the IA/Information Resources Directorate and its divisions’ management will be notified. Depending on the nature of the emergency, their assistance may be required to locate and assign personnel to the EOC.

B.3.8.2 Personnel Phone Directories: List in Appendix B, Table 1-4 identify CTS Team, Table 1-5 identify UNITES Team, Table 1-6 identity AT&T Team and Table 1-7 shows NASA Emergency Support Management Team.

B.3.9 Typical Field Radio Unit Configuration: Local JSC emergency services use portable hand-held receiver/transceivers. This Appendix defines the Zone and the channels functions, and the persons and organizations using the equipment. Appendix B, Tables 1-8 and 1-10 apply to Fire, Safety, Security, and Emergency Response Team radios.

Fire/Safety/Medical communications are on Zone 1 FIRE network or as otherwise directed by the EOC Dispatcher. The ERT will use Zone 1 EMERGENCY network or as otherwise directed by the EOC.

## LIST OF TABLES

## TABLE 1-1 COMMUNICATIONS EQUIPMENT POWER

| Resource | Type | Location | Generator | UPS or Battery | Dependencies/Interconnects | Comment |
|---|---|---|---|---|---|---|
| CTS-17 | PHN | 17 | Permanent | Yes – 8 hr. | AT&T trunks, local nodal links | Trunk blockage possible |
| CTS-30 | PHN | 30A/ 1069 | Permanent | Yes – 1 hr. | AT&T trunks, local nodal links | Trunk blockage possible |
| CTS-E260 | PHN | E260 | Permanent | Yes – 8 hr. | AT&T trunks, local nodal links | Trunk blockage possible |
| SCTF | PHN | 920/ 21M2 | Permanent | Yes – 8 hr. | AT&T trunks, local nodal links | Trunk blockage possible |
| Networx-17 | PHN | 17 | Yes | Yes – 15 min. | AT&T trunks, local nodal links | Long distance service |
| Cellular Phones | C-PHN | Distributed | N/A | Yes – varies, 2-4 hrs. | 455 channels shared with local community. Loss of telephone central office or lines kills cellular service. | Blockage possible. Loss of cellular service possible. Depends on telephone company |
| Portable radios | PORT | Distributed | N/A | Yes varies, 2-8 hrs. | Some require base or repeaters to operate | 5 Watt transmitter |
| | | | | | | |
| | | | | | | |

| Resource | Type | Location | Generator | UPS or Battery | Dependencies/Interconnects | Comment |
|---|---|---|---|---|---|---|
| Disaster Prepared-ness and Civil Defense | BASE | B30S NW Penthouse | Permanent B48 Power | No | CTS backbone cable for B25. Primary control is direct connected through B30 - no tunnel routing. | Control at Emergency Response Team Room<br><br>Primary control is in EOC. |
| JSC Com-munity Emer-gency Net | BASE | B30S NW Penthouse | Permanent B48 Power | No | Control is direct connect through B30 - no tunnel routing | Control is in EOC |
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NOTE: The phone system has diesel backup so it can run indefinitely as long as fuel is available.

## TABLE 1-2 JSC CRITICAL TELEPHONE INSTRUTMENTS

| Function | Phone No. | Building | Room |
|---|---|---|---|
| EOC Emergency | 5-7298 | 30M | 225 |
| EOC Emergency | 5-7299 | 30M | 225 |
| EOC Administration | 3-1074 | 30M | 225 |
| EOC Administration | 3-1075 | 30M | 225 |
| JSC Emergency | 3-3333 | 30L | 3110 |
| EOC Administration | 3-4658 | 30L | 3110 |

## TABLE 1-3 “DEAD SWITCH” EMERGENCY TELEPHONES

| Bldg. | Room | Contact | Located | Instrument | Faceplate No. | Outside (Trunk) No. |
|---|---|---|---|---|---|---|
| 30L | 3110 | EPC | EDC | Analog flash phone | 57298 | TBD |
| 30L | 3120 | EPC | EOC | Analog flash phone | 57299 | TBD |

## TABLE 1-4 EMERGENCY SUPPORT CONTRACTOR - ODIN

| Name | Title | Work | Home | Cell |
|---|---|---|---|---|
| James F. Patrick | LMIT CTS POC | 832.284.0321 | | 713-429-2521 |
| Littell Jack Hammond | LMIT Safety Mgr | 832.284.0135 | | 832-647-2678 |
| Hursel McGlaughn | CTS Manager | 281-244-6810 | 281-251-5724 | 713-412-5715 |
| Steven Alpha | CTS Switchman | 281-483-9902 | 281-383-3921 | 281-250-0300 |
| Tim Visco | CTS Switchman | 281-244-2271 | 281-922-7816 | 713-244-4340 |
| Dexter Manley | CTS Technician | 281-792-9924 | 713-747-3557 | 713-244-4349 |
| Pat Fletcher | CTS Technician | 281-483-9996 | 281-331-9506 | 281-851-0027 |
| John Scott | CTS Technician | 281-244-0980 | 281-332-0886 | 281-733-6472 |

NOTE: The phone system has diesel backup, so it can run indefinitely as long as fuel is available and no mechanical failures occur.

## TABLE 1-5 EMERGENCY SUPPORT CONTRACTOR - UNITES

| Title | Work | Pager |
|---|---|---|
| UNITES Site Manager | 281-483-7544 | 1-800-946-4646<br>PIN: 1127486 |
| UNITES Gateway | 281-483-1297 | 1-888-494-6949 |

## TABLE 1-6 EMERGENCY SUPPORT CONTRACTOR (AT&T)

| Name | Title | Work | Pager |
|---|---|---|---|
| Estella Johnson | AT&T Repair Service 2nd Level Escalation for AT&T | 314 505-1646<br>314-608-5556 cell | 888-796-1152 |
| Socorro Hernandez<br>Karen Garrett | Apollo Central Office Manager<br>Area Manager Apollo Central Office | 713 847-3032<br>713 567-5775 | 713 775-3281 cell<br>713 504-7960 cell |
| Gunny Wedekind | National Security Emergency Preparedness | 1-214-464-7328 | 214 499-2656 cell |
| Peter J. Deleonardis | Special Services Manager | 713 567-7995 | 713 614-9265 cell |
| Tolli Macalik | Local Services Manager SW Region | 214-915-2585 | 817 454-1187 cell |
| Joseph Tedone | National Account Manager | 860 947-7162 | 860 841-1495 cell |
| Jim Weaver | Engineer/Technician | 281-483-9917 | 713-769-3049 |

## TABLE 1-7 EMERGENCY SUPPORT - NASA

| Name | Title | Work | Home | Pager |
|---|---|---|---|---|
| IA/Larry Sweet | Deputy Director, IRD Resources | 281-483-4007 | 281-996-3811 | 281-613-0062 – p |
| IT2/ LTC Lindsey<br>IT2/ Dr. Khan | AT&T Interface | 281-483-7013<br>281-483-7657 | 713-847-9322<br>713-521-3526 | 713-854-6052 /<br>281-439-3614 – p |
| IT2/LTC Lindsey / Dr. Khan | CTS Telephone System | 281-483-7013<br>/ 281-483-7657 | 713-854-6052 /<br>713-521-3526 | _____ – p<br>_____ – c |
| IP/Patrick Chimes | Multimedia & Engineer | 281-483-2397 | | _____ – p<br>_____ – c |
| IT2/LTC Lindsey (P)<br>IT2/David Kelldorf (A) | JSC Emergency Communications Officer | 281-483-7013<br>281-244-8739 | 713-847-9322<br>281-352-1094 | 713-854-6052 – c<br>888-265-3909 – p |
| JB9/S. Ramirez | Alt. For Communications | 281-483-4003 | 281-474-9338 | 281-450-6154 – c |

## TABLE 1-8 TYPICAL FIELD RADIO CONFIGURATIONS

| Zone | Function |
|---|---|
| 1 | FIRE |
| 1 | SECURITY |
| 1 | SWAT |
| 1 | EMERGENCY |

| | |
|---|---|
| 1 | SPECIAL EVENTS |

## TABLE 1-9 JSC AMATEUR RADIO CLUB SPECIALIST TEAM

| Name | Contact |
|---|---|
| Larry Dietrich | 281-483-9198 |
| Karl Silverman | 281-483-1047 |

## TABLE 1-10 FIRE, SECURITY, AND SAFETY CALL SIGNS

| Call Sign | Assigned To | Organization |
|---|---|---|
| Whitebird 97 | Elmer Johnson | FIRE/SAFETY |
| Whitebird 98 | David Loyd | FIRE/SAFETY |
| Whitebird 99 | James Taylor | FIRE/SAFETY |
| Whitebird 1 | JB Williamson | FIRE/SAFETY |
| Whitebird 2 | Fire Protection Specialist (24-hour) | FIRE/SAFETY |
| Whitebird 3 | Fire Protection Specialist (24-hour) | FIRE/SAFETY |
| Whitebird 3A | | FIRE/SAFETY |
| Whitebird 3B | | FIRE/SAFETY |
| Whitebird 4 -9 | Fire Alarm Technicians add numbers up to 32 for fire alarm technicians | FIRE/SAFETY |
| Whitebird 10 | Base Unit (B-25) | FIRE/SAFETY |
| Whitebird 11 | Fire Protection Technician | FIRE/SAFETY |
| Whitebird 12 | | FIRE/SAFETY |
| Whitebird 13 | | FIRE/SAFETY |
| Whitebird 14 | | FIRE/SAFETY |
| Whitebird 15 | Ellington Field/Alarm | FIRE/SAFETY |
| FRSRVD 1-7 | | FIRE/SAFETY |
| Medic 1 | Ambulance #1 | JSC/MEDICAL |

| Call Sign | Assigned To | Organization |
|---|---|---|
| Medic 2 | Ambulance #2 | HFD |
| Medic 3 | Ambulance #3 (Ellington) | JSC/MEDICAL |
| Engine 72 | Pumper Truck, Station #72 | HFD |
| Ambulance 72 | Ambulance Station#72 | HFD |
| Ladder 71 | Ladder Truck, Station #71 | HFD |
| Medic 72 | HFD Ambulance, Station #72 | HFD |
| Yankee – 1 | DWC Program Manager | Diamond |
| Fox 1 | Security Chief | Diamond |
| Fox 2 | Assistant Security Chief | Diamond |
| Fox 3 | EDC Security Supervisor | Diamond |
| Fox 4 | | |
| Fox 5 | SWAT – Manager | Diamond |
| SUPER | Shift Supervisor | Diamond |
| EDC | EDC Dispatcher | Diamond |
| NASA Safety | JSC Ground Safety Officer | NASA/EFD/CA2 |
| Echo 1 | Emergency Preparedness Coordinator | JS7 |
| Echo 2 | COD Emergency Preparedness Officer | JS7 |
| Echo 3 | Office of Emergency Management Lead | JS7 |
| Echo 4 | Facilities | JC |
| Echo 5 | Facility Management Coordinator | JC |
| Echo 6 | JSC Communications Officer | IRD |
| Echo 7 | JSC Radio Specialist | JS7 |
| Echo 8 | Environmental | JC |
| Echo 9 | Environmental | JC/DynCorp |
| Echo 10 | Medical/Occupational Health | SD |
| Echo 11 | Medical/Occupational Health | SD |
| Echo 12 | Public Affairs | AP |
| Echo 13 | Public Affairs | AP |
| Echo 14 | Dr./Medical | SD |
| Echo 15 | Medical | SD |
| Echo 16 | Medical Chief Nurse | SD |
| Echo 17 | EAP Office | SD |

| Call Sign | Assigned To | Organization |
|---|---|---|
| Echo 18 | Medical | SD |
| Echo 19 | NBL | DX |
| Echo 20 | NBL | DX |
| Echo 21 | NBL | DX |
| Echo 22 | NBL | DX |
| Echo 23 | Bldgs 7 and/or 32; Manned Testing | EC |
| Echo 24 | Space Center Houston | SCH |
| Alpha 1 | Chief, Protective Services Division | JS |
| Alpha 2 | Chief, Security Office | JS4 |
| Alpha 3 | | JS4 |
| Alpha 4 | | JS4 |
| Alpha 5 | | JS4 |
| Alpha 6 | | JS4 |
| Alpha 7 | | JS4 |
| Alpha 8 | | JS4 |
| Alpha 9 | | JS4 |
| Alpha 10 | | JS4 |
| Alpha 11 | | JS4 |
| Alpha 12 | | JS4 |
| Alpha 13 | | |
| Alpha 14 | | |
| Alpha 15 | | |
| SRSRVD#1-7 | Security Reserved Radios 1 – 7 | JS4 |
| Sierra –1 | SWAT | Diamond |
| Sierra –2 | SWAT | Diamond |
| Sierra – 3 | SWAT | Diamond |
| Sierra – 4 | SWAT | Diamond |
| Sierra – 5 | SWAT | Diamond |
| Sierra – 6 | SWAT | Diamond |